

New Hampshire Natural Heritage Bureau

DNCR - Division of Forests & Lands 172 Pembroke Road, Concord, NH 03301 (603) 271-2215

Rare Animal List for New Hampshire

Including species listed as threatened or endangered under the NH Endangered Species Conservation Act of 1979

July 2020

This list is maintained in cooperation with the





A Quick Overview of the NH Natural Heritage Bureau's Purpose and Policies

The Natural Heritage Bureau is mandated by the Native Plant Protection Act of 1988 (NH RSA 217-A) to determine protective measures and requirements necessary for the survival of native plant species in the state, to investigate the condition and degree of rarity of plant species, and to distribute information regarding the condition and protection of these species and their habitats.

The Natural Heritage Bureau provides information to facilitate informed land-use decision-making. We are not a regulatory agency; instead, we work with landowners and land managers to help them protect the State's natural heritage and meet their land-use needs.

The Natural Heritage Bureau has three facets:

Inventory involves identifying new occurrences of sensitive species and classifying New Hampshire's biodiversity. We currently study more than 630 plant and animal species and 190 natural communities. Surveys for rarities on private lands are conducted only with landowner permission.

Tracking is the management of occurrence data. Our database currently contains information about more than 6,000 plant, animal, and natural community occurrences in New Hampshire.

Interpretation is the communication of Natural Heritage Bureau information. Our goal is to cooperate with public and private land managers to help them *protect* rare species populations and exemplary natural communities.

The Nongame & Endangered Wildlife Program of the NH Fish & Game Department coordinates protection efforts for the state's wildlife that are not hunted, fished, or trapped. The Nongame Program works closely with the NH Natural Heritage Bureau to maintain a database of rare and imperiled wildlife populations throughout the state. Locational information about rare animals in the Natural Heritage Bureau database compliments a habitat-based database for all of New Hampshire's wildlife that is managed by the NH Fish & Game Department.

Animals Tracked by the Nongame Program and the NH Natural Heritage Bureau

The following list is our current assessment of the status of the state's rarest and most imperiled animal species. The Nongame Program has developed the list in cooperation with researchers, conservation organizations such as the Audubon Society of New Hampshire, knowledgeable amateur biologists, and the NH Natural Heritage Bureau. We obtained wildlife locations from sources including museum specimens, personal contacts, the scientific literature, and through extensive field research. It is important for readers to remember that this list is dynamic – as new discoveries are made or populations are lost, species may be added to or removed from the list.

For each species, we have provided the following information:

Common Name Common names are provided for all species that have them. Many insect

species, particularly moths, do not have common names, so either general

terms such as "A Noctuid Moth" are used or no name is given ("—").

Scientific Name Scientific names are standardized with the scientific names used by other

Natural Heritage programs throughout the United States, Canada, the

Caribbean, Latin America, and South America.

Global & State Ranks When considering the rarity of a species, it is important to consider the status

of a species both in New Hampshire and across its total range. The degree of rarity within New Hampshire is noted with a "State Rank" and throughout its range with a "Global Rank." Ranks are on a scale of 1 to 5, with a 1 indicating critical imperilment, a 3 indicating that the species is vulnerable, and a 5 indicating that the species is secure. Some species, such as the dwarf wedgemussel (*Alasmidonta heterodon*), are critically imperiled both globally and in New Hampshire. Other species, such as the upland sandpiper (*Bartramia longicauda*), are very rare in New Hampshire (S1) but quite

common in other parts of their range (G5).

The rankings for wildlife are based more on the degree of imperilment than on the number of occurrences in the state, although abundance certainly plays a role in assessing a species' long-term viability in New Hampshire. Some species, such as the fish crow (*Corvus ossifragus*) have only a few occurrences in New Hampshire but, since they are expanding northward into the state, they are considered to be vulnerable but not imperiled. Blandings turtles (*Emydoidea blandingii*), on the other hand, appear to be distributed fairly broadly across the state, but populations are extremely small and vulnerable to habitat loss, so they are considered to be vulnerable.

In this technical list, we have noted the full global and state ranks. The codes are defined on pages iii and iv.

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Listing

A portion of New Hampshire's rare animals are listed as "threatened" or "endangered" under the NH Endangered Species Conservation Act of 1979 (NH RSA 212-A). "Endangered" species are those in danger of being extirpated from the state, while "threatened" species face the possibility of becoming "endangered." A subset of these species are also listed under the federal Endangered Species Act of 1973. In New Hampshire, an additional "special concern" list contains (a) species that could become "threatened" in the foreseeable future if conservation actions are not taken or that were recently recovered enough to be removed from the endangered and threatened category and (b) species for which a large portion of their global or regional range (or population) occurs in New Hampshire and where actions to protect these species habitat will benefit the species' global population. Species that do not meet the criteria for "endangered", "threatened", or "special concern", but that are still biologically rare, as indicated by the State and Global Ranks, are also listed as rare in New Hampshire.

Known Sites

There has not been a comprehensive search of the state for rare species, so we are frequently finding or learning about previously unknown populations. Further, many populations have not been checked since they were originally found, sometimes more than 50 years ago, so we do not know the status of these populations. We have therefore separated known sites into two subcategories: those last seen more than 20 years ago, and those reported within the last 20 years. This distinction helps show the state of our knowledge about a given species and the need for additional research. If no locations are indicated in the list (- -), the species is known to have once occurred in the state, but specific sites are not in our database.

You Can Help!

Our biologists can only cover so much ground, so we are constantly seeking information from other sources. Knowledgeable recommendations for adding or removing species from the list of "endangered" and "threatened" species are always welcomed. Further, locational information about any of the species we track will help make our database more complete and therefore more useful for land-use planning. A form for reporting rare animal species that you find is attached to the back of this list. It is the policy of the NH Natural Heritage Bureau not to survey on private property without landowner permission, so please respect your neighbor's privacy. Thank you!

If you have any questions or need additional information, please do not hesitate to contact us.

Address: Nongame Program/NHFG Telephone: (603) 271-2462

11 Hazen Drive Fax: (603) 271-1438

Concord, NH 03301

Address: Natural Heritage Bureau/DNCR Telephone: (603) 271-2215

172 Pembroke Road Fax: (603) 271-6488

Concord, NH 03301

Explanation of Global and State Rank Codes

Ranks describe rarity both throughout a species' range (globally, or "G" rank) and within New Hampshire (statewide, or "S" rank). The rarity of sub-species and varieties is indicated with a taxon ("T") rank. For example, a G5T1 rank shows that the species is globally secure (G5) but the sub-species is critically imperiled (T1).

| Code | e Examples | | Description |
|--------------|------------|------------|---|
| 1 | G1 | S1 | Critically imperiled because extreme rarity (generally one to five occurrences) or some factor of its biology makes it particularly vulnerable to extinction. |
| 2 | G2 | S2 | Imperiled because rarity (generally six to 20 occurrences) or other factors demonstrably make it very vulnerable to extinction. |
| 3 | G3 | S 3 | Either very rare and local throughout its range (generally 21 to 100 occurrences), or found locally (even abundantly at some of its locations) in a restricted range, or vulnerable to extinction because of other factors. |
| 4 | G4 | S4 | Widespread and apparently secure, although the species may be quite rare in parts of its range, especially at the periphery. |
| 5 | G5 | S5 | Demonstrably widespread and secure, although the species may be quite rare in parts of its range, particularly at the periphery. |
| \mathbf{U} | GU | SU | Status uncertain, but possibly in peril. More information needed. |
| Н | GH | SH | Known only from historical records, but may be rediscovered. A G5 SH species is widespread throughout its range (G5), but considered historical in New Hampshire (SH). |
| X | GX | SX | Believed to be extinct. May be rediscovered, but evidence indicates that this is less likely than for historical species. A G5 SX species is widespread throughout its range (G5), but extirpated from New Hampshire (SX). |

The following modifiers indicate that there is some question about a species' rank.

| Code | Examples | | Description | |
|------|----------|-----|---|--|
| Q | G5Q | GHQ | Questions or problems may exist with the species' or sub-species' taxonomy, so | |
| | | | more information is needed. | |
| ? | G3? | S3? | The rank is uncertain due to insufficient information at the state or global level, | |
| | | | so more inventories are needed. When no rank has been proposed the rank | |
| | | | may be "G5T?" or "S?" | |

The following modifiers indicate when the breeding status of a migratory species is considered separately from individuals passing through or not breeding within the New Hampshire. These modifiers are only attached to state ranks.

| Code | Example | Description |
|------|---|--|
| В | SHB | Indicates the breeding status in New Hampshire of a migratory species. |
| N | N S1N Indicates the non-breeding status in New Hampshire of a migratory These species are typically over-wintering birds with regular aggregations. | |
| | | that could be conservation targets. |

Breeding-status modifiers may be used alone or in combinations. For example:

S3B Breeding occurrences are uncommon (S3B), and the species does not over-

winter in New Hampshire.

SUB,S1N The breeding status of the species is unknown (SUB), and any wintering site is

critically imperiled or extremely rare (S1N) regardless of breeding status.

When ranks are somewhat uncertain or the species' status appears to fall between two ranks, the ranks may be combined. For example:

G4G5 The species may be globally secure (G5), but appears to be at some risk (G4).

G5T2T3 The species is globally secure (G5), but the sub-species is somewhat imperiled

(T2T3).

G4?Q The species appears to be relatively secure (G4), but more information is

needed to confirm this (?). Further, there are questions or problems with the

species' taxonomy (Q).

G3G4Q S1S2 The species is globally uncommon (G3G4), and there are questions about its

taxonomy (Q). In New Hampshire, the species is very imperiled (S1S2).



| | m le | 1:-4 | | V | !4 | |
|--|---------------|-------------|-----------------|--------------|--------------|---------|
| Name | Raı Global | nk State | List Federal | ing State | <2000 | 2000+ |
| | Global | Otate | rederai | Otate | \2000 | 2000⊤ |
| Invertebrates - Mollusks | 00 | 04 | | _ | | 00 |
| Brook Floater (<i>Alasmidonta varicosa</i>) Dwarf Wedge Mussel (<i>Alasmidonta heterodon</i>) | G3 | S1 | | E | - | 33 |
| Eastern Pond Mussel (<i>Ligumia nasuta</i>) | G1G2 G4 | S1 S1 | E | E SC | 1 - | 13 |
| Lastern Fond Musser (<i>Ligarnia Hasuta</i>) | G4 | 51 | | SC | - | 8 |
| Invertebrates - Ants & Wasps | | | | | | |
| Fen Ant (Lasius minutus) | GNR | S1 | | | - | 2 |
| Invertebrates - Beetles | | | | | | |
| A Tiger Beetle (Cicindela ancocisconensis) | G3 | S1S3 | | | - | 2 |
| Cobblestone Tiger Beetle (Cicindela marginipennis) | G2 | S1 | | Е | - | 6 |
| Margined Tiger Beetle (Cicindela marginata) | G5 | S1 | | | - | 1 |
| Puritan Tiger Beetle (Cicindela puritana) | G1G2 | SH | Т | Е | - | - |
| Invertebrates - Butterflies & Moths | | | | | | |
| A Noctuid Moth (Chytonix sensilis) | G4 | S1S2 | | | - | 3 |
| A Noctuid Moth (Zale lunifera) | G3G4 | S1 | | | - | 2 |
| Barrens Itame (Speranza exonerata) | G3G4 | S1S2 | | SC | - | 2 |
| Barrens Xylotype (Xylotype capax) | G4 | S2 | | SC | - | 6 |
| Edwards' Hairstreak (Satyrium edwardsii) | G4 | S3 | | | - | 2 |
| Frosted Elfin (Callophrys irus) | G2G3 | S1 | | Е | - | 7 |
| Hessel's Hairstreak (Callophrys hesseli) | G3 | S1 | | | - | 2 |
| Karner Blue Butterfly (Plebejus melissa samuelis) | G1G2 | S1 | Е | Е | 4 | 1 |
| Persius Dusky Wing (Erynnis persius persius) | G5T1T3 | S1 | | Е | 6 | - |
| Phyllira Tiger Moth (Grammia phyllira) | G4 | S1 | | SC | - | 4 |
| Pine Barrens Zanclognatha Moth (Zanclognatha | G4 | S1 | | SC | - | 4 |
| martha) | 0.47470 | 0400 | | _ | | 4 |
| Pine Pinion Moth (<i>Lithophane lepida lepida</i>) Sleepy Duskywing (<i>Erynnis brizo brizo</i>) | G4T1T3 | S1S2 | | T | - | 1 |
| The Cora Moth (Cerma cora) | G5T5 G3G4 | S2 S1S2 | | SC SC | - | 3 3 |
| White Mountain Butterfly (<i>Oeneis melissa semidea</i>) | G5T2 | S132 | | T | - | 2 |
| White Mountain Fritillary (Boloria titania montinus) | G512 G5T1 | S1 | | E | - | 3 |
| | 6311 | 51 | | L | _ | 3 |
| Invertebrates - Dragonflies & Damselflies | | | | | | _ |
| Black Meadowhawk (Sympetrum danae) | G5 | S1 | | | - | 6 |
| Coppery Emerald (Somatochlora georgiana) Incurvate Emerald (Somatochlora incurvata) | G3G4 | S1 | | SC | - | 1 |
| Kennedy's Emerald (<i>Somatochlora kennedyi</i>) | G5 | S1S2 | | | - | 8 |
| Lyre-tipped Spreadwing (Lestes unguiculatus) | G5 G5 | SNR S1 | | SC | - | 5 |
| Martha's Pennant (Celithemis martha) | G3 G4 | S2S3 | | | - | 5 23 |
| Pine Barrens Bluet (<i>Enallagma recurvatum</i>) | G3 | S1 | | SC | _ | 1 |
| Pygmy Snaketail (<i>Ophiogomphus howei</i>) | G3 | S2 | | | - | 8 |
| Rapids Clubtail (Gomphus quadricolor) | G3G4 | S1S2 | | SC | _ | 9 |
| Ringed Boghaunter (<i>Williamsonia lintneri</i>) | G3 | S2 | | E | _ | 15 |
| Sedge Darner (Aeshna juncea) | G5 | S1 | | | - | 6 |
| Skillet Clubtail (Gomphus ventricosus) | G3 | S1 | | SC | _ | 7 |
| Subarctic Bluet (Coenagrion interrogatum) | G5 | S1 | | | _ | 2 |
| Subarctic Darner (Aeshna subarctica) | G5 | S2 | | | _ | 10 |
| , | | | | | | . • |

Vertebrates - Fish

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| Rank | | | | ing | Known sites | |
|---|------------|-------|---------|-------|-------------|-------|
| Name | Global | State | Federal | State | <2000 | 2000+ |
| Alewife (Alosa pseudoharengus) | G5 | S5 | | SC | - | - |
| American Brook Lamprey (<i>Lampetra appendix</i>) | G4 | S1 | | E | _ | 2 |
| American Eel (Anguilla rostrata) | G4 | S3 | | SC | _ | 177 |
| Atlantic Sturgeon (Acipenser oxyrinchus) | G3 | S1 | Т | T | 1 | 1 |
| Banded Sunfish (Enneacanthus obesus) | G5 | S3 | | SC | - | 32 |
| Blueback Herring (Alosa aestivalis) | G3G4 | S4 | | SC | _ | - |
| Bridle Shiner (Notropis bifrenatus) | G3 | S2 | | T | _ | 36 |
| Finescale Dace (<i>Phoxinus neogaeus</i>) | G5 | S3 | | SC | 6 | - |
| Northern Redbelly Dace (Phoxinus eos) | G5 | S3 | | SC | - | 12 |
| Rainbow Smelt (Osmerus mordax) | G5 | S3 | | SC | _ | - |
| Redfin Pickerel (Esox americanus americanus) | G5T5 | S3 | | SC | _ | 32 |
| Round Whitefish (<i>Prosopium cylindraceum</i>) | G 5 | S1 | | T | _ | 5 |
| Sea Lamprey (Petromyzon marinus) | G5 | S3 | | SC | _ | 5 |
| Shortnose Sturgeon (Acipenser brevirostrum) | G3 | S1 | Е | E | _ | 2 |
| Sunapee Trout (Salvelinus alpinus) | G5 | SX | | | _ | - |
| Swamp Darter (Etheostoma fusiforme) | G5 | S3 | | SC | _ | 13 |
| | 00 | • | | | | .0 |
| Vertebrates - Amphibians | | | | | | |
| Blue-spotted Salamander (Ambystoma laterale) | G5 | S3 | | SC | - | - |
| Fowler's Toad (Anaxyrus fowleri) | G5 | S2 | | SC | - | 8 |
| Jefferson Salamander (Ambystoma jeffersonianum) | G4 | S2S3 | | SC | 4 | - |
| Jefferson/Blue-spotted Salamander Complex | GU | S2S3 | | | - | 19 |
| (Ambystoma pop. 3) Marbled Salamandar (Ambystoma apacum) | 05 | 04 | | _ | | _ |
| Marbled Salamander (Ambystoma opacum) | G5 | S1 | | E | - | 5 |
| Northern Leopard Frog (Lithobates pipiens) | G5 | S3 | | SC | - | 18 |
| Slimy Salamander (Plethodon glutinosus) | G5 | SH | | | 1 | - |
| Vertebrates - Reptiles | | | | | | |
| Blanding's Turtle (<i>Emydoidea blandingii</i>) | G4 | S1 | | Е | - | 1098 |
| Eastern Box Turtle (Terrapene carolina) | G5 | S1 | | Е | - | 19 |
| Eastern Hognose Snake (Heterodon platirhinos) | G5 | S1 | | Е | - | 45 |
| Northern Black Racer (Coluber constrictor constrictor) | G5T5 | S2 | | T | - | 70 |
| Smooth Green Snake (Opheodrys vernalis) | G5 | S3 | | SC | - | 85 |
| Spotted Turtle (Clemmys guttata) | G5 | S2 | | T | - | 165 |
| Timber Rattlesnake (Crotalus horridus) | G4 | S1 | | Е | - | 12 |
| Wood Turtle (Glyptemys insculpta) | G3 | S3 | | SC | 1 | 280 |
| Vertebrates - Birds | | | | | | |
| American Kestrel (Falco sparverius) | G5 | S3B | | SC | _ | _ |
| American Pipit (Anthus rubescens) | G5 | S2B | | SC | _ | 1 |
| American Three-toed Woodpecker (Picoides dorsalis) | G5 | S2 | | SC | _ | 7 |
| Arctic Tern (Sterna paradisaea) | G5 | S1B | | SC | _ | 2 |
| Bald Eagle (<i>Haliaeetus leucocephalus</i>) | G5 | S2 | Т | SC | _ | 140 |
| Bank Swallow (<i>Riparia riparia</i>) | G5 | S3B | | SC | _ | 2 |
| Cerulean Warbler (Dendroica cerulea) | G4 | S3B | | T | _ | 2 |
| Cliff Swallow (Petrochelidon pyrrhonota) | G5 | S3B | | Ť | _ | 29 |
| Common Gallinule (Gallinula galeata) | G5 | S2B | | SC | _ | 7 |
| Common Loon (Gavia immer) | G5 | S2B | | T | _ | 339 |
| Common Nighthawk (Chordeiles minor) | G5 | S1B | | E | _ | 12 |
| Common Tern (Sterna hirundo) | G 5 | S2B | | T | _ | 9 |
| | 30 | 0_0 | | • | | J |

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| | Rank | | Listing | | Known sites | |
|--|----------|-------|---------|-------|-------------|-------|
| Name | Global | State | Federal | State | <2000 | 2000+ |
| Eastern Meadowlark (Sturnella magna) | G5 | S3B | | Т | - | 28 |
| Golden Eagle (Aquila chrysaetos) | G5 | SHB | | Е | - | - |
| Grasshopper Sparrow (Ammodramus savannarum) | G5 | S2B | | Т | - | 15 |
| Horned Lark (Eremophila alpestris) | G5 | S3B | | SC | - | 8 |
| Least Bittern (Ixobrychus exilis) | G4G5 | S1B | | SC | - | 9 |
| Least Tern (Sterna antillarum) | G4 | S1B | | Е | - | 1 |
| Marsh Wren (Cistothorus palustris) | G5 | S3B | | | - | 37 |
| Nelson's Sparrow (Ammodramus nelsoni) | G5 | S3B | | SC | _ | 2 |
| Northern Harrier (Circus hudsonius) | G5 | S1B | | E | 1 | 12 |
| Peregrine Falcon (Falco peregrinus anatum) | G4T4 | S2 | | Т | _ | 25 |
| Pied-billed Grebe (Podilymbus podiceps) | G5 | S2B | | Т | - | 35 |
| Piping Plover (Charadrius melodus) | G3 | S1B | Т | Е | _ | 1 |
| Purple Martin (<i>Progne subis</i>) | G5 | S1B | | Т | _ | 22 |
| Roseate Tern (Sterna dougallii dougallii) | G4T3 | S1B | Е | Е | _ | 1 |
| Rusty Blackbird (Euphagus carolinus) | G4 | S3B | | SC | - | 16 |
| Saltmarsh Sparrow (Ammodramus caudacutus) | G2 | S3B | | SC | _ | 8 |
| Seaside Sparrow (Ammodramus maritimus) | G4 | S1B | | SC | - | 1 |
| Sedge Wren (Cistothorus platensis) | G5 | S1B | | SC | - | 5 |
| Sora (<i>Porzana carolina</i>) | G5 | S3B | | SC | - | 16 |
| Upland Sandpiper (Bartramia longicauda) | G5 | S1B | | Е | - | 6 |
| Vesper Sparrow (Pooecetes gramineus) | G5 | S2S3B | | SC | - | 20 |
| Willet (Catoptrophorus semipalmatus) | G5 | S3B | | SC | - | 8 |
| Vertebrates - Mammals | | | | | | |
| American Marten (Martes americana) | G5 | S2 | | SC | - | 143 |
| Canada Lynx (Lynx canadensis) | G5 | S1 | Т | Е | - | 17 |
| Eastern Cougar (Felis concolor couguar) | G5TXQ | SH | | | - | - |
| Eastern Red Bat (Lasiurus borealis) | G3G4 | S3?B | | SC | - | - |
| Gray Wolf (Canis lupus) | G5 | SX | | Е | - | - |
| Harbor Seal (<i>Phoca vitulina</i>) | G5 | S4N | | | - | - |
| Hoary Bat (Lasiurus cinereus) | G3G4 | S3B | | SC | - | - |
| Indiana Bat (Myotis sodalis) | G2 | SNA | E | | - | - |
| Little Brown Myotis (Myotis lucifugus) | G3 | S1 | | Ε | - | 4 |
| New England Cottontail (Sylvilagus transitionalis) | G3 | S1 | | Е | - | 24 |
| Northern Bog Lemming (Synaptomys borealis | G5T2T3 | S1 | | SC | 3 | - |
| sphagnicola) | | | _ | _ | | |
| Northern Long-eared Bat (Myotis septentrionalis) | G1G2 | S1 | Т | E | - | 23 |
| Silver-haired Bat (Lasionycteris noctivagans) | G3G4 | S3B | | SC | - | - |
| Small Footed Bat (Myotis leibii) | G4 | S1 | | E | - | 5 |
| Tricolored Bat (Perimyotis subflavus) | G2G3 | S1 | | Е | - | - |
| Vertebrates - Bat Hibernacula | . | | _ | _ | | |
| Bat hibernaculum (Bat Hibernaculum) | GNR | S1 | Т | E | - | 13 |

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Rank Prefix:

G = Global Rank

S = State Rank

T = Global or State Rank for a subspecies or variety

Rank Suffix:

1 = Critically imperiled

2 = Imperiled

3 = Vulnerable

4 = Apparently secure

5 = Secure

B = Breeding population N = Non-breeding population

H = Occurred historically, not seen recently

X = Extirpated

NR / U = Not ranked / Unknown

Q = Questionable taxonomy ? = Uncertain

Listing Codes: E = Endangered T = Threatened

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Rare Species Occurrence Record

Please fill out this form to report the location of a rare plant or animal species to the New Hampshire Natural Heritage Bureau. Required information is indicated by an asterisk; other items are desirable but not required. Rare species lists are at: www.nhnaturalheritage.org

Call (603) 271-2215 with any questions. Thank you!

If sent to NHB as a Word document, use the naming convention "Name Town Mon dd", where "Name" = what was seen (common or scientific) and town, month & day are where & when it was seen, e.g., "Loon Squam Aug 12" or "Scirpus longii Derry Sep 12".

| 71 | भगावा वाप भगाना | | |
|----|------------------|--|--|
| * | Scientific Name: | | |
| | Common Name: | | |

* Date(s) Observed:

What and Whan

* Who Observed It: Phone # or email:

| Λ | ca | t1 | ^ | n |
|------|----|----|----|-----|
| /L D | 12 | | ., | ••• |
| | | | | |

| | Town Name: |
|---|--|
| * | Map. Attach a map with the location marked. Ideally, use a USGS topographic map. If you hand-sketch the |
| | map, be sure to include a north arrow, scale, and landmarks such as roads and major water bodies. If you |
| | provide GPS coordinates, please tell us the model of the unit and the datum (e.g., WGS 84 or NAD 83). |
| | Directions. Write this as if you are telling someone how to get back to the exact site: |

Taxonomy

| * | How did you identify the species? What traits helped you decide that you had seen this species? What |
|---|---|
| | similar species did you consider and how did you exclude them? Photos showing key characteristics are |
| | welcome. A specimen is usually required to document a new plant population, however, an entire plant |
| | should never be collected if there are < 20 plants present. |
| | |
| | |

* Certainty of ID (1=dubious, 5=absolutely positive):

If a specimen was collected, collector, collection number, and where the specimen is stored:

| Biology |
|---|
| * How many? If there are a few, count them. If there are a lot, estimate (e.g. 50-100) |
| Plants: how are they distributed, in how large an area? For example: "In a tight clump about 2 feet square" or "Scattered over a 30 x 60 foot area" |
| Evidence of reproduction? Plants: flowers/fruit/seed. Animals: nests/youngsters etc. |
| Local surroundings: what do you see when you look around the area? Is it a steep slope or the middle of a swamp? What are the most common plants? |
| Conservation Status (if known): |
| * Land ownership: name of owner (private) or area (if public). |
| Phone number of owner (if known): |
| Is the landowner aware that you are reporting this find to NH Heritage? $\underline{Y / N}$ |
| Factors that indicate how secure the occurrence is (e.g. evidence of disturbance / owner is interested in protecting it) |
| |